

Recruitment of Caribbean female commercial sex workers at high risk of HIV infection

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ABSTRACT

Objective. To evaluate novel eligibility criteria and outreach methods to identify and recruit women at high risk of HIV-1 infection in the Caribbean.

Methods. A prospective cohort study was conducted in 2009–2012 among 799 female commercial sex workers in the Dominican Republic, Haiti, and Puerto Rico. Minimum eligibility criteria included exchange of sex for goods, services, or money in the previous 6 months and unprotected vaginal or anal sex with a man during the same period. Sites used local epidemiology to develop more stringent eligibility criteria and recruitment strategies. Participants were asked questions about HIV/AIDS and their level of concern about participating in an HIV vaccine trial. Logistic regression modeling was used to assess predictors of prevalent HIV infection and willingness to participate in a future HIV vaccine study.

Results. HIV prevalence at screening was 4.6%. Crack cocaine use [odds ratio (OR) = 4.2, 95% confidence interval (CI) (1.8–9.0)] was associated with and having sex with clients in a hotel or motel [OR = 0.5, CI (0.3–1.0)] was inversely associated with HIV infection. A total of 88.9% of enrolled women were definitely or probably willing to participate in a future HIV vaccine trial.

Conclusions. This study indicated that local eligibility criteria and recruitment methods can be developed to identify and recruit commercial sex workers with higher HIV prevalence than the general population who express willingness to join an HIV vaccine trial.

Key words

HIV infections; acquired immunodeficiency syndrome; AIDS vaccines; sex workers; Caribbean region; Dominican Republic, Haiti, Puerto Rico.

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Clinical trials to assess the efficacy of a vaccine must be conducted in the populations that ultimately would benefit from vaccination. Women at high risk of HIV infection, however, have been

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underrepresented in HIV vaccine efficacy trials in the Americas, with females representing only about 15% of trial participants across three HIV vaccine efficacy trials (1–3). Well-tested strategies to access and recruit populations of women at high risk of HIV infection into HIV vaccine trials conducted in clade B regions are needed.

HIV prevalence among Caribbean adults is about 1.2 %, the highest outside

sub-Saharan Africa (4). It is also the only region outside Africa where the proportion of HIV-infected females (53%) is higher than for males (4). Unprotected heterosexual sex, particularly through commercial sex work, is thought to be the primary mode of HIV transmission in the Caribbean (4). From 2006 to 2008, HIV prevalence among female commercial sex workers (CSWs) was 2.7% to 4% in the Dominican Republic (DR) and 9% in Jamaica (5–8). In Bermuda and Puerto Rico (PR), unsafe use of injection drugs also contributes significantly to HIV transmission (9, 10).

The successful conduct of HIV vaccine efficacy trials depends on the recruitment, enrollment, and retention of diverse populations at high risk of HIV-1 infection (11). They require high compliance with a vaccination schedule and careful adherence to follow-up visits and assessments. Excellent retention rates are necessary to ensure that all vaccinations are administered, safety is thoroughly evaluated, and all infections are identified (12). Trials must provide the highest standard of HIV prevention services while meeting incidence thresholds enabling efficacy assessment (13).

An HIV vaccine trial preparedness study, HVTN 903, was conducted in 2003–2004 that recruited 453 high-risk Caribbean women from DR, Jamaica, PR, and Haiti (14). Although the study was not powered to assess infection rates due to the small sample size and short follow-up time, over the 12 months of follow-up only one woman from DR became infected. More recently, the low incidence among women in the Step study, an HIV vaccine efficacy trial conducted in clade B regions including the Caribbean, pointed to the need to better identify cohorts of women at high risk of HIV-1 infection (2, 15).

Unlike previous studies, HVTN 907 was designed to recruit only commercial sex workers and explore new recruitment strategies informed by site-specific epidemiologic data. Objectives also include identifying risk behaviors and partner characteristics associated with HIV incidence. In this report, we describe the recruitment methods, baseline characteristics of the cohort, HIV prevalence among those screened, and willingness to participate in a future HIV vaccine trial expressed at enrollment.

MATERIALS AND METHODS

Study design

HVTN 907 was a prospective observational cohort study conducted in Haiti, PR, and DR to determine the feasibility of recruiting and retaining Caribbean female CSWs at high risk of HIV infection into HIV vaccine efficacy trials, with a focus on the demographic, behavioral, or other social factors associated with high HIV incidence and prevalence. At the screening visit, women provided informed consent and underwent eligibility assessments. Eligible and willing women returned to the clinic within 7–28 days for the enrollment visit. At enrollment, women completed a questionnaire on attitudes about HIV/AIDS and future HIV vaccine trial participation. After enrollment, women had follow-up visits at 6, 12, and 18 months that included HIV testing, HIV risk reduction counseling, and behavioral assessments. Data from screening and enrollment visits are presented here. Analyses of longitudinal data will be reported separately.

All participants signed an informed consent form before screening. Language for informed consents was reviewed by local community advisory boards composed of community volunteers. The study was approved by the institutional review boards for each institution.

Study eligibility

Eligibility requirements included being an at-risk HIV uninfected female, ages 18–45 (21 is the legal lower limit for PR), willing to receive HIV test results and risk reduction counseling, not pregnant or intending to become pregnant for 18 months, and deemed medically and psychologically capable of participation. The minimum eligibility requirement for being at high risk of HIV infection was self-report of sex in exchange for money, drugs, services, or gifts and unprotected vaginal or anal sex with a man in the preceding 6 months. Each study site imposed additional, more stringent, site-specific eligibility criteria. In Haiti, criteria included women reporting unprotected vaginal or anal intercourse with at least 10 clients per week for the past 8 weeks. In PR, women had to be recruited from targeted “drug copping” areas (where injection drug users [IDUs] inject/share drugs),

“drug points” (where drugs are illegally sold or distributed), or neighborhoods with a high crime rate or well known for commercial sex work. In DR, women had to have a primary education level or less, have unprotected vaginal or anal intercourse with at least 10 partners in the past month, and not have prior participation in HIV prevention programs. In addition, participants in DR could not be a part of Modemu, a sex worker association that provides access to information about HIV prevention.

Study recruitment

Each site developed recruitment methods for their local populations based on local epidemiologic data, lessons from previous studies, and information from community members and community-based organizations (CBOs). All sites made extensive use of street outreach within local “risk pockets” to recruit women, working with CBOs that provide outreach and services to CSWs. Recruiters scheduled screening visits at the clinic for women willing to participate. After obtaining informed consent at the screening visit, women completed a brief eligibility assessment based on a self-report of HIV and pregnancy status and risk behaviors. Those still eligible and willing continued with a complete eligibility evaluation, including more in-depth behavioral risk assessment and pregnancy and HIV testing.

The Haitian Group for the Study of Kaposi’s Sarcoma and Opportunistic Infections (GHESKIO) clinic conducted street outreach in five regions of the Port au Prince metropolitan area, working primarily through networks established by GHESKIO, the community advisory board, and a CBO. Recruiters and peer educators prescreened women in assigned regions, targeting places where CSWs were known to work. Interested and eligible women were given a standardized clinic referral appointment card. Willing participants received two education sessions on the study at the clinic before signing the consent form. After screening, an eligibility committee reviewed the women’s data to ensure that each potential volunteer met all requirements.

The site in Santo Domingo Unidad de Vacunas IDCP-COIN-DIGECITSS (IDCP) targeted areas well-known for commercial sex work in and around

Santo Domingo that were not targeted in previous trials. New “risk areas” were mapped to where bars and brothels were present and where independent commercial sex work took place, with a focus on prisons and neighborhoods around prisons. The site engaged CSWs, called “amigas de la investigación” (research friends), to assist with peer outreach to CSWs. Recruiters visited risk areas during peak activity periods. If a woman was interested, she received an appointment card to meet on the street again. Recruiters addressed questions and concerns in the second street meeting. If a woman continued to express interest, after providing informed consent for prescreening, she completed a prescreening survey. For those eligible and willing to provide contact information, an appointment was made to attend an educational session at the clinic. Afterward, a study-specific informed consent form was signed and counselors performed a more in-depth eligibility assessment to determine eligibility for a second final eligibility determination visit.

The site at the University of Puerto Rico, Maternal Infant Studies Center, in partnership with the Iniciativa Comunitaria de Investigación’s Kamaria Project (a CBO), implemented outreach activities near the municipalities of Bayamón, Carolina, Fajardo, Loíza, and San Juan. Because the HIV/AIDS epidemic in PR has been driven by male injection drug use, the site targeted CSWs in high drug use areas. Community outreach workers mapped specific neighborhoods and approached women for potential participation in the study. Constant communication with the study staff allowed for the prescreening of participants with high-risk behavior and high possibility of good retention.

Statistical analysis

Site differences in demographics, risk behaviors, and partner characteristics were assessed with chi-square tests for categorical items and Kruskal–Wallis tests for continuous data items. As a measure of recruitment efficiencies, the ratio of the number of women who had a screening visit (referred to as “screened”) to those enrolled was calculated by site and recruitment strategy. HIV prevalence was calculated for women who had a screening visit HIV test result, excluding women who self-

reported HIV infection. HIV prevalence rates are presented with exact 95% binomial confidence intervals (CIs).

Multivariable logistic regression models were used to evaluate the association of sexual behaviors, alcohol and drug use, participant demographics, and partner characteristics (Table 1) with HIV prevalence and expressed willingness to participate in a future HIV vaccine trial. Willingness was measured with four response levels, which were dichotomized for modeling as definitely willing or probably willing compared with definitely not willing or probably not willing. For willingness, perceived personal benefit from an HIV vaccine and level of concern regarding participation in an HIV vaccine trial (coded as high, medium, or low) were also assessed. Odds ratios (ORs), 95% CIs, and Wald *P* values are presented for models with statistically significant items ($P \leq 0.05$).

RESULTS

Recruitment and enrollment

Overall, the study met enrollment targets, enrolling 799 women from May 2009 to July 2010. Nearly half (49%) of the women screened were deemed ineligible (Figure 1), with 63% of ineligible women not meeting the protocol risk criteria. The screening to enrollment ratio was highest for Haiti, 3.77 screened to 1 enrolled, compared with DR 1.21 and PR 1.18 (Table 2). In DR, the 2 most widely used strategies, street and bar/brothel outreach, yielded the same ratio, 1.19. The ratio for street outreach was 3.76 in Haiti and lower in DR (1.19) and PR (1.18).

Participant characteristics

Although all participants were sex workers, there were significant differences among the three sites in characteristics of the enrolled women (Table 1, all unadjusted *P* values < 0.0003). Haiti had the youngest cohort (median 23 years) and PR had the oldest (median 30 years). Women in PR were more likely (82%) to have some high school education or a general equivalency diploma than in DR (20%) and Haiti (44%). At all sites, the majority of women (82%) reported having dependent children. Homelessness was reported by 25% of the PR partici-

pants and was less in the DR (4%) and Haiti (8%). Most women at all sites did not live with a main partner. Only 1% of the Haitian participants reported ever having been incarcerated, while it was reported in 33% and 25% of the PR and DR cohorts, respectively. Few Haitian women reported alcohol abuse or drug use, whereas 84% of women from DR and 50% from PR were heavy drinkers and 24% and 77%, respectively, used noninjected recreational drugs. PR was the only site to recruit IDUs (12%). Study participants in Haiti were more likely to self-report having had a sexually transmitted infection within 6 months before the study: 19% compared with 8% for DR and 5% for PR.

Sexual behaviors

Haitian women had higher numbers of male partners, which includes clients and main and casual/anonymous nonpaying partners, in the 6 months before screening (median 780; Table 1) compared with the DR cohort (median 113 partners) and the PR cohort (median 10). However, women in PR were more likely to report having a main partner (60%) compared with 32% of DR and 29% of Haitian women. Early initiation of sexual contact with clients was reported at all sites (medians 17–19 years old). Nearly all women in DR and PR (98% and 90%, respectively) had sex with clients in a motel or hotel compared with 45% of women in Haiti. In Haiti, having sex on the street was the most frequently reported venue (55%). Unique to DR was having arranged sex with inmates in jails and prisons (28%). Sexual violence by clients was more often reported among the Haitian participants (47%), compared with 19% of DR and 7% of PR participants.

Partner characteristics

The majority of women (86%) did not know the HIV/AIDS status of their partners (Table 1). A majority (62%) reported that partners had other concurrent female partners. Study participants in DR and PR were more likely to have a partner who was/had been in jail (40% and 30%, respectively), whereas it was reported by 10% in Haiti. Similar proportions of women reported having an IDU partner in Haiti (20%) and PR (17%) as compared with DR (5%), while only

TABLE 1. Characteristics of enrolled participants by study site^a

	Dominican Republic (n = 264)		Haiti (n = 334)		Puerto Rico (n = 201)		All sites (n = 799)	
	No.	%	No.	%	No.	%	No.	%
Age, median (years)	25.5		23		30		26	
Education								
Less than high school	211	79.9	186	55.7	36	17.9	433	54.2
High school	53	20.1	148	44.3	138	68.7	339	42.4
Undergraduate	0	0.0	0	0.0	27	13.4	27	3.4
Monthly household income (US\$)								
< \$100	2	0.8	327	99.4	19	10.0	348	45.1
\$100 to < \$500	125	49.6	2	0.6	113	59.5	240	31.1
≥ \$500	125	49.6	0	0	58	30.5	183	23.7
Missing	12		5		11		28	
Household income supports children	242	91.7	289	86.5	127	63.2	556	82.4
Homeless	10	3.8	28	8.4	50	24.9	88	11.0
Lives with a main partner	18	6.8	20	6.06	55	27.4	93	11.6
Ever spent time in jail/prison	66	25.0	5	1.5	67	33.3	138	17.3
Heavy drinker ^b	223	84.5	9	2.7	100	49.8	332	41.6
Injection drug use	0	0.0	2	0.6	24	11.9	26	3.3
Noninjection drug use	63	23.9	19	5.7	154	76.6	236	29.5
Crack cocaine/cocaine use	51	19.3	1	0.3	69	34.3	121	15.1
Self-reported sexually transmitted infection	20	7.6	63	18.9	10	5.0	93	11.6
Number of male partners, median	113		780		10		200	
Number of clients, median	113		780		7		192	
Had a main partner	85	32.2	96	28.7	120	59.7	301	37.7
Age of first sex with a client, median	17		17		19		18	
Sex with client in motel/hotel	260	98.5	150	44.9	180	89.6	590	73.8
Sex with client on street	52	19.7	183	55.0	60	29.9	295	37.0
Sex with client at home	120	45.5	104	31.1	62	30.8	286	35.8
Sex with client in brothel	42	15.9	91	27.2	16	8.0	149	18.6
Sex with client in bar/nightclub	59	22.3	33	9.9	17	8.5	109	13.6
Sex with client in jail or prison	74	28.0	3	0.9	1	0.5	78	9.8
Sex with client in other location	72	27.3	31	9.3	39	19.4	142	17.8
Unprotected anal sex	59	22.3	55	16.5	83	41.3	197	24.7
Client forced sex	51	19.3	157	47.0	15	7.5	223	27.9
Had an HIV+ partner	0	0.0	5	1.5	4	2.0	9	1.1
No	6	2.3	19	5.7	74	36.8	99	12.4
Don't know	258	97.7	310	92.8	123	61.2	691	86.5
Had injection drug user partner	12	4.5	66	19.8	34	16.9	112	14.0
No	15	5.7	94	28.1	125	62.2	234	29.3
Don't know	237	89.8	174	52.1	42	20.9	453	56.7
Had partner with concurrent women	155	58.7	199	59.9	142	70.6	496	62.2
No	1	0.4	19	5.7	8	4.0	28	3.5
Don't know	108	40.9	114	34.3	51	25.4	273	34.3
Had a "man who has sex with men" partner	13	4.9	11	3.3	13	6.5	37	4.6
No	10	3.8	63	18.9	82	40.8	155	19.4
Don't know	241	91.3	259	77.8	106	52.7	606	75.9
Had a partner who had been in jail/prison	105	39.8	33	9.9	61	30.3	199	24.9
No	3	1.1	93	27.8	88	43.8	184	23.0
Don't know	156	59.1	208	62.3	52	25.9	416	52.1

^a Differences between sites were statistically significant for all items at $P < 0.0001$ except for sex with client at home ($P = 0.0003$) and had a partner who had concurrent women partners ($P = 0.0001$). Behaviors are with regard to the six months before the screening visit unless otherwise noted.

^b Heavy drinker defined as six or more drinks per day or one who drinks four or five drinks every day.

in PR did women report having a main partner who was an IDU (5%).

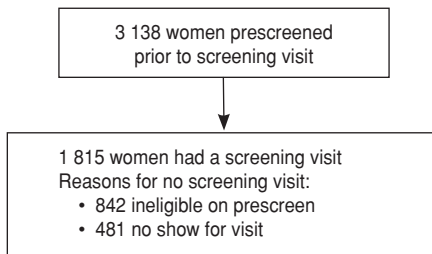
HIV prevalence

HIV prevalence of previously undiagnosed HIV infections, based on the screening visit HIV testing, was 5.1% in Haiti (24/467), 4.8% in PR (11/229),

3.6% in DR (11/309), and 4.6% (46/1 005, 95% CI 3.4%, 6.1%) across sites (Table 2). In Haiti, prevalence was 5.2% among women recruited through street outreach, and in the DR prevalence was 3.1% for both street and bar/brothel outreach (Table 2).

Crack cocaine use was significantly associated with prevalent HIV infection

[OR = 4.2 (95% CI 1.8, 9.0), $P = 0.0003$] and having sex with clients in a hotel/motel was inversely associated [OR = 0.5 (95% CI 0.3, 1.0), $P = 0.047$], as identified in a logistic regression model with data from the three sites combined. Numbers of male sexual partners, numbers of clients, having a casual partner, or having a main partner were nonsignificant

FIGURE 1. Trial profile

factors. Site was not a significant factor, but given the differences between sub-populations, sites were also analyzed individually. For Haiti, significant factors were being homeless [OR = 3.8 (95% CI 1.2, 10.6), $P = 0.01$] and having a partner known to have sex with men [OR = 5.2 (95% CI 1.1, 17.9), $P = 0.02$]. For PR, crack use [OR = 9.1, 95% CI (2.5, 42.7), $P = 0.002$] was significant. For DR, no significant factors were identified.

Beliefs about HIV/AIDS and HIV vaccine trial participation

The majority of participants agreed that HIV was a serious problem in their country: 75% of PR, 64% of Haiti, and 44% of DR participants strongly agreed.

Most participants (83%) agreed strongly or agreed that they would benefit from an HIV vaccine. Eighty-six percent and 66% of DR and PR women admitted that a family member or friend had or died of HIV/AIDS, but only 12% reported this in Haiti.

A majority (85%) of women responded “very concerned” to at least 1 of the 11 items regarding HIV vaccine trial participation (Figure 2). Permanent injury or death was of most concern (70% being very concerned), followed by testing positive on a standard HIV test (48% very and 27% somewhat concerned). Although 74% of the Haitian participants and 51% of the DR participants were not concerned about short-term side effects, among PR women 36% were very and 42% somewhat concerned. Slightly over half of DR and PR women were very concerned about long-term side effects, whereas 26% of Haitian women were. Avoiding pregnancy was not of concern to most: 91% and 86% of the Haitian and DR groups and 65% of the PR women.

The majority of enrolled women reported that they would be definitely willing or probably willing to participate in a future HIV vaccine trial (DR 90%,

Haiti 93%, PR 81%). Significant factors associated with willingness to participate from the multivariable logistic regression model for all sites combined were perceived personal benefit from an HIV vaccine (OR = 5.6; 95% CI 3.4, 9.1; $P < 0.0001$), a client forced the woman to have sex (OR = 2.8; 95% CI 1.5, 5.8; $P = 0.003$), and the woman felt she could become infected with HIV in the next five years (OR = 2.0; 95% CI 1.1, 3.9; $P = 0.03$). A high level of concern about participation in an HIV vaccine trial (OR = 0.3; 95% CI 0.2, 0.5; $P < 0.0001$) was associated with not being willing to participate in an HIV vaccine trial.

DISCUSSION

This study reviews sociodemographic and epidemiologic data among Caribbean CSWs and factors associated with previously undiagnosed prevalent HIV infection and recruitment strategies and risk behaviors associated with high HIV-1 prevalence. For women enrolled in the longitudinal cohort, willingness to participate in a future HIV vaccine trial was evaluated.

Prevalence of undiagnosed HIV infection in this study was 3.6% in DR, 4.8%

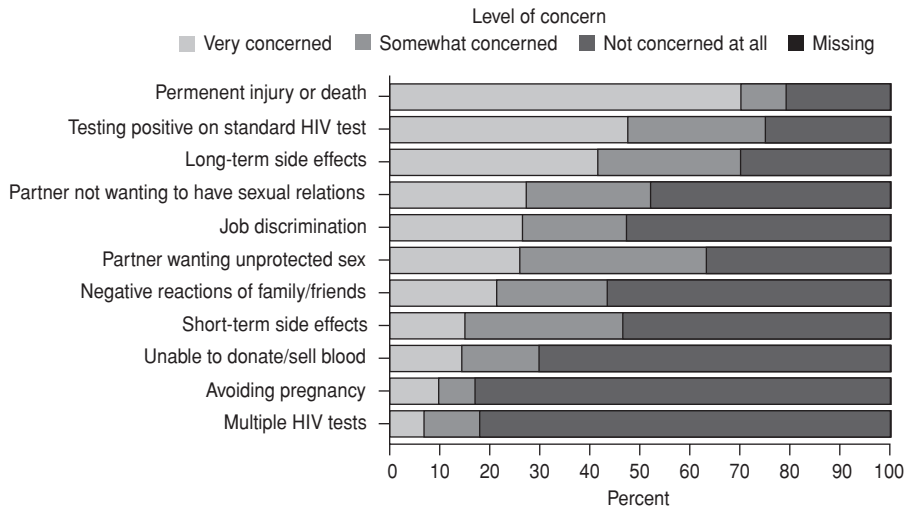
TABLE 2. Screening to enrollment ratios and HIV prevalence by site and recruitment strategy^a

Site	Recruitment strategy	Recruitment			HIV prevalence			
		Screened (No.)	Enrolled (No.)	Screening-to-enrollment ratio	Tested (No.)	Infected ^b (No.)	Prevalence (%)	95% confidence interval
Dominican Republic		319	264	1.21	309	11	3.6	1.8–6.3
	Street outreach	201	169	1.19	96	6	3.1	1.1–6.5
	Bar/brothel outreach	100	84	1.19	97	3	3.1	0.6–8.8
	Social service agency outreach	4	3	1.33	4	1	25.0	0.6–80.6
	Jail/prison outreach	21	13	1.62	19	1	5.3	0.1–26.0
Haiti		1 258	334	3.77	464	24	5.1	3.3–7.6
	Street outreach	1 255	334	3.76	464	24	5.2	3.3–7.6
	Bar/brothel outreach	2	0	NA ^c	2	0	0.0	0.0–84.2
	Social service agency outreach	15	3	5.00	9	1	11.1	0.3–48.2
	Event outreach	39	11	3.55	22	1	4.5	0.1–22.8
	Referral	34	7	4.86	17	0	0.0	0.0–19.5
Puerto Rico		238	201	1.18	229	11	4.8	2.4–8.4
	Street outreach	238	201	1.18	229	11	4.8	2.4–8.4
All sites		1 815	799	2.27	1 005	46	4.6	3.4–6.1
	Street outreach	1 694	704	2.41	889	41	4.6	3.3–6.2
	Bar/brothel outreach	102	84	1.21	99	3	3.0	0.6–8.6
	Social service agency outreach	19	6	3.17	13	2	15.4	1.9–45.4
	Jail/prison outreach	21	13	1.62	19	1	5.3	0.1–26.0
	Event outreach	39	11	3.55	22	1	4.5	0.1–22.8
	Referral	34	7	4.86	17	0	0.0	0.0–19.5

^a Women recruited by more than one strategy are counted in each applicable category. For screening to enrollment ratios and prevalence, five women from the Dominican Republic were counted as recruited by both street and jail/prison outreach and two by street and bar/brothel outreach. In Haiti, for screening to enrollment ratios and prevalence, all but three women (one by social service agency outreach and two by referral) were recruited by street outreach and one or more other methods.

^b Number of infections detected by HIV antibody testing at the screening visit.

^c Not applicable.

FIGURE 2. Level of concern about participating in an HIV vaccine trial

in PR, and 5.1% in Haiti. These rates are based on HIV testing results at the screening stage in this study. Those who self-reported HIV infections were not tested. Therefore, the prevalence in the targeted subgroups may be higher than reported here. The prevalence in these CSW cohorts is higher than that of the general population in each country; for example, over 2 times that of the general population in Haiti and 4 times that in DR (16, 17).

Risk for sexual acquisition of HIV infection depends on the behavior of a subgroup population and the HIV prevalence in the population (16, 18). In this study, these factors differed among the cohort of women at each of the sites. Crack cocaine use was a statistically significant predictor of HIV prevalence but was found primarily among the PR cohort; this could explain the risk for PR women, who had fewer total clients but were more likely to have a main IDU partner. Having sex with clients in a hotel/motel was mostly reported in DR and might be a surrogate for the women with access to condoms or to other prevention strategies. Having sex with clients on the street, more frequently reported in Haiti, appeared to enhance HIV infection risk and may be related to less condom use or other high-risk behavior. This study observed that Haiti had the highest HIV prevalence but the lowest proportion of women reporting knowing someone who was HIV infected or who had died of AIDS. This finding may indicate participant denial or protection from the perceived stigma of knowing a person with HIV/AIDS.

This study differs from previous studies, such as HVTN 903 and the Step study, in that only CSWs were recruited and included a younger age group, 18–45 years, compared with 18–60 years for HVTN 903. The eligibility criteria for women in the Step study included exchanging sex for money or drugs, crack cocaine use, or having unprotected sex with an HIV-infected or IDU male partner. Among the Caribbean women enrolled in the Step study, 7 HIV infections were diagnosed during 1 844 person-years of follow-up (personal communication, Statistical Center for HIV/AIDS Research and Prevention). By focusing on the enrollment of CSW, our cohort has a higher percentage of women engaging in behaviors that put them at risk for HIV infection. At baseline, 92% of the 622 Caribbean women enrolled in the Step study exchanged sex for money or goods compared with 100% in HVTN 907, 64% reported unprotected vaginal or anal sex compared with 100% in HVTN 907, and 14% reported drug use compared with 30.3% in HVTN 907. Data were not collected on the risk practices of their male partners in the other studies.

Site-specific strategies accounting for local epidemiologic, demographic, and social factors should be considered to inform recruitment of high-risk women for future HIV vaccine trials. In this study, the Haiti site used CSW peer educators, field workers, and social workers from a local CBO to conduct street outreach in areas of Port au Prince where CSWs regularly worked. The DR site used CSW peer educators to recruit CSWs who were

not members of Modemu (a group from which participants were recruited for previous studies) and who worked within or in close proximity to jails. PR identified areas where drugs are illegally sold or distributed, injection drugs are shared, there are high crime rates, and CSWs were located. Prescreening and screening were part of the recruitment strategies used at all sites. The strategies appear to be effective for identifying a population at higher risk of HIV infection as prevalence observed at screening was higher than that of the general population. High HIV prevalence at screening, however, may not be indicative of high incidence during a longitudinal study, a necessity for HIV vaccine efficacy trials.

Most CSWs in this study were probably or definitely willing to participate in future vaccine studies. These results are promising. There are limitations, however, on how well cohort study data translate to actual willingness to enroll in a vaccine study (19). Expressing willingness to a hypothetical situation may be more likely than actual willingness to join an HIV vaccine trial. In addition, participants who enroll in a cohort study may not represent an equivalent population as those who enroll in a vaccine study.

Challenges in identifying, recruiting, and retaining CSWs include constant migration, socioeconomic limitations, and stigma associated with CSW and HIV. Despite these difficulties, having a good understanding of these factors and the local epidemic and working effectively with CBOs who understand these subpopulations resulted in relatively low screening to enrollment ratios. Further analysis is needed to evaluate behavior changes that may occur as a result of risk reduction counseling and how these and other factors may affect HIV prevalence and incidence rates in subgroups.

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Conflicts of interest. None.

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RESUMEN

Captación de mujeres profesionales del sexo con alto riesgo de infección por VIH en el Caribe

Objetivo. Evaluar nuevos criterios de selección y métodos extrainstitucionales encaminados a detectar y captar a las mujeres con alto riesgo de contraer la infección por virus de la inmunodeficiencia humana (VIH) en el Caribe.

Métodos. Del 2009 al 2012, se llevó a cabo un estudio prospectivo de cohortes de 799 mujeres profesionales del sexo en la República Dominicana, Haití y Puerto Rico. Los requisitos mínimos de selección fueron el intercambio de relaciones sexuales por bienes, servicios o dinero en los últimos 6 meses y las relaciones sexuales vaginales o anales sin protección con un hombre durante el mismo período. En cada centro se aplicaron criterios de selección y estrategias de captación más restrictivos, en función de las características epidemiológicas locales. Se formularon a las participantes preguntas acerca de la infección por el VIH/sida y su motivación para participar en un estudio clínico sobre la vacuna contra el VIH. Se usó un modelo de regresión logística con el fin de analizar los factores pronósticos de prevalencia de infección por el VIH y la voluntad de participar en un estudio futuro sobre la vacuna contra el virus.

Resultados. La prevalencia de infección por el VIH en el momento del tamizaje fue 4,6%. El consumo de crack se asoció con la infección por el VIH (razón de posibilidades [OR]: 4,2; intervalo de confianza [IC] de 95%: 1,8–9,0) y la práctica de relaciones sexuales con clientes en un hotel o un motel se asoció inversamente con esta infección (OR: 0,5; IC 95%: 0,3–1,0). El 88,9% de las mujeres inscritas manifestó una disposición decidida o probable de participar en un estudio futuro sobre la vacuna contra el VIH.

Conclusiones. Los resultados del estudio indican que es posible formular criterios de selección e introducir métodos de captación locales con el propósito de detectar y captar a las mujeres profesionales del sexo, que presentan una prevalencia de infección por el VIH mayor que la población general y manifiestan una buena disposición de participar en un ensayo clínico sobre la vacuna contra el VIH.

Palabras clave

Infecciones por VIH; síndrome de inmunodeficiencia adquirida; vacunas contra el sida; trabajadores sexuales; región del Caribe; República Dominicana; Haití; Puerto Rico.